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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,655	11/29/2001	Robert J. Meyer	D/A0735Q	2626

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EXAMINER
BRASE, SANDRA L

ART UNIT	PAPER NUMBER
2852	

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Offic Action Summary	Application No.	Applicant(s)	
	09/995,655	MEYER ET AL.	
	Examiner	Art Unit	
	Sandra L. Brase	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 June 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 10-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 10-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. Claims 1-8, 10 and 11 are objected to because of the following informality: on line 5 of claim 1, "carrierand" should be changed to "carrier and". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 2, 5-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ojima et al. (US 5,519,472) in view of Yamashita (US 4,597,661) and Kudo et al. (US 4,297,384).

5. Ojima et al. (...472) disclose a development system comprising: a housing (7) defining a chamber storing a supply of developer material (figure 1); a donor member, mounted partially in the chamber and spaced from an imaging surface (2), for transporting developer on an outer surface thereof to a region opposed from the imaging surface (figure 1), where the donor member has a magnetic assembly (18) having a plurality of poles, a sleeve (8) enclosing the magnetic assembly, rotating about the magnetic assembly (figure 2); and a trim bar (26) at a predetermined position spaced from the donor member, where the trim bar includes a vibrating member for disrupting a developer bed and reducing the developer bed height of the developer material on the donor member to a predefined developer bed height (col. 3, lines 43-54 and col. 5, lines 1-17; col. 5, lines 55-63; col. 6, lines 20-27; and col. 8, lines 28-52). The trim bar comprises a shaped metal blade fastened to the wall of the development housing (col. 5, lines 1-3). The predefined developer bed height is 10-100 μm (col. 14, lines 13-15). A means (19) applies an oscillating electric field between the donor member and the imaging surface (col. 5, lines 19-36; and col. 7, line 64 – col. 8, line 4). The vibrating member vibrates at 1800 Hz (col. 5, line 36). However, Ojima et al. (...472) do not disclose the developer material comprising the claimed carrier and toner, the rpm of the donor member and the claimed plurality of trim bars. Yamashita (...661) discloses a developer material in a magnetic development system can be a one-component developer or a two-component developer, where a two-component developer includes a carrier and a toner (col. 1, lines 38-50). The carrier can be iron or ferrite (col. 1, lines 41-44). The donor member in the development system is rotated at 200 rpm (col. 5, lines 20-21). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the developer material be a two-component developer with the claimed carrier and toner since

such a developer material is notoriously well known in the art, as disclosed by Yamashita (...661), and it would have also been obvious to rotate the donor member at the claimed rpm since such a rotating speed for a donor member in a developing operation is well known in the art, as disclosed by Yamashita (...661). Kudo et al. (...384) disclose a development system that includes a plurality of trim bars (15a and 15b) positioned about a donor roll (13) at a predefined position and spacing around the donor roll (col. 2, lines 33-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to have a plurality of trim bars, as disclosed by Kudo et al. (...384) so as to control the thickness of developer layer to obtain a toner image of desirable image density.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ojima et al. (US 5,519,472) in view of Yamashita (US 4,597,661) and Kudo et al. (US 4,297,384) as applied to claim 1 above, and further in view of Hirata et al. (US 5,532,804).

7. Ojima et al. (...472) in view of Yamashita (...661) and Kudo et al. (...384) disclose the features mentioned previously, but do not disclose the pole spacing of the magnetic assembly. Hirata et al. (...804) disclose a development system including a magnetic assembly with a pole spacing of 1-10 mm (col. 13, lines 23-35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a pole spacing in the claimed range so as to transport a sufficient amount of developer material during the developing operation, as disclosed by Hirata et al. (...804).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ojima et al. (US 5,519,472) in view of Yamashita (US 4,597,661), Kudo et al. (US 4,297,384) and Hirata et al. (US 5,532,804) as applied to claim 3 above, and further in view of Tajima et al. (US 4,936,249).

9. Ojima et al. (...472) in view of Yamashita (...661), Kudo et al. (...384) and Hirata et al. (...804) disclose the features mentioned previously, but do not disclose the thickness of the sleeve. Tajima et al. (...249) disclose a development system with a sleeve (2), which encloses a magnetic assembly, having a thickness of 0.25 – 1.5 mm (col. 4, lines 64-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the claimed sleeve thickness since it is well known in the art for a sleeve in a development system to have such a thickness, as disclosed by Tajima et al. (...249).

10. Claim11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ojima et al. (US 5,519,472) in view of Yamashita (US 4,597,661) and Kudo et al. (US 4,297,384) as applied to claim 1 above, and further in view of Kanno et al. (US 4,538,898).

11. Ojima et al. (...472) in view of Yamashita (...661) and Kudo et al. (...384) disclose the features mentioned previously, but do not disclose the vibrating member comprising a piezoelectric element. Kanno et al. (...898) disclose a development system including a blade that is vibrated by a piezoelectric element (col. 9, lines 32-36). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the vibrating member comprise a piezoelectric element, as disclosed by Kanno et al. (...898), since it is well known in the art to use a piezoelectric element as a vibrating member of a blade in a development system.

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ojima et al. (US 5,519,472) in view of Yamashita (US 4,597,661) and Kanno et al. (US 4,538,898).

13. Ojima et al. (...472) disclose a development system comprising: a housing (7) defining a chamber storing a supply of developer material (figure 1); a donor member, mounted partially in the chamber and spaced from an imaging surface (2), for transporting developer on an outer surface thereof to a region opposed from the imaging surface (figure 1), where the donor member has a magnetic assembly (18) having a plurality of poles, a sleeve (8) enclosing the magnetic assembly, rotating about the magnetic assembly (figure 2); and a trim bar (26) positioned about a donor roll at a predefined position and spacing around the donor roll, where the trim bar includes a vibrating member for disrupting a developer bed and reducing the developer bed height of the developer material on the donor member to a predefined developer bed height (col. 3, lines 43-54 and col. 5, lines 1-17; col. 5, lines 55-63; col. 6, lines 20-27; and col. 8, lines 28-52). However, Ojima et al. (...472) do not disclose the developer material comprising carrier and toner, and the vibrating member including a piezoelectric element. Yamashita (...661) discloses a developer material in a magnetic development system can be a one-component developer or a two-component developer, where a two-component developer includes a carrier and a toner (col. 1, lines 38-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the developer material be a two-component developer with the claimed carrier and toner since such a developer material is notoriously well known in the art, as disclosed by Yamashita (...661).. Kanno et al. (...898) disclose a development system including a blade that is vibrated by a piezoelectric element (col. 9, lines 32-36). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the vibrating

member comprise a piezoelectric element, as disclosed by Kanno et al. (...898), since it is well known in the art to use a piezoelectric element as a vibrating member of a blade in a development system.

Response to Arguments

14. Applicant's arguments with respect to claims 1-8 and 10-12 have been considered but are moot in view of the new ground(s) of rejection.

Contacts \ Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is (703) 308-3101.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley, can be reached on (703) 308-1373. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431 or 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Sandra L. Brase
Primary Examiner
Art Unit 2852

August 18, 2003